Safety

U.S. Department of Labor
MSHA
Mine Safety & Health Administration

Working Near Water

Warning Signs

OSTC
Working Near Water

- Working near water presents a range of health & safety issues that need to be properly managed.

- Basic principles involve: identification of hazards, assessment of risks, designing safe systems of work, ensuring the workforce are properly trained, equipped and supervised, and having appropriate procedures in place.

- It is essential, when working on or near water that safe systems of work are in place based on a thorough risk assessment and that staff are properly trained and instructed.
What are some of the hazards?

Working on equipment in the pit Impoundment ponds
Working on floating pumping stations
Operating dredges or other equipment near water
And of course... Slips, trips and falls when working around water
DID YOU KNOW THAT...
Between 2005 and 2016 there were 24 water related fatalities in Metal and Nonmetal Mining.
The hazards of working near water are clear... Entrapment & Drowning.
Let’s Keep It Simple!!
Life jackets or belts shall be worn where there is danger from falling into water.
SIMPLY WEAR IT!
What are some reasons some miners don’t wear their Life Jackets or Belts, aka...PFD?
It’s too TIGHT!!
It’s too HOT!!
It’s too RESTRICTING!! I can’t work with it on!!!
I forgot it!! I’m only going to be a minute!!
I don’t REALLY Need It!!
So...What are some of the Risks??
There are a number of risk factors that are intensified when water is involved:

• Equipment weight and vibration
• **Undercut banks** (56.3401, Examination of Ground Conditions)
• Sloughing ground
• Varied water depth
• Swift currents
• Inadequate berms
• Narrow roadways
• Electrocution
SOOO... What can happen? These miners were lucky!
• #1
• A mine worker was operating a bulldozer to construct a ramp from one mine level to another. After completing the ramp, he decided to place a bund around the sump. He tested the sump depth by placing the blade into it. He thought the sump was shallow and backed the bulldozer into the sump to clean it out. However, in the test the blade had rested on the sump side not the bottom, and the bulldozer ended up partially submerged.
After assessing the situation and completing a risk assessment, a mine supervisor, excavator operator and an electrician began moving an electric pump to deal with very high water in the mine sump. The operator attached the pump and pontoon to the excavator’s lifting eye with the supervisor holding the cables clear of the excavator acting as spotter. As the operator was about to position the pump, the safety berm and bank gave way and the excavator slipped into the water. The high water level had decreased the ramp’s stability and the sides collapsed with the excavator’s weight on its edge. The supervisor slipped towards the water but managed to find his footing and got clear of excavator. The excavator operator managed to climb through a side window of the vehicle.
• #3
• An excavator was loading trucks with sump slops for the working shift.
• While waiting for trucks, the excavator operator had been sidecasting pond material. During this process the excavator slipped sideways on solid rock into the pond. The operator tried to correct the slipping by pushing back on his bucket. This action tipped the excavator sideways into the pond. The excavator cab was partly submerged in water. The operator exited the machine cab via its rear window.
• #4

• A mine worker moving an excavator between two sites encountered a road closure on the normal access route. He decided to detour across a pond division wall. Smaller excavators had traversed it on previous occasions. When the excavator was halfway across, the wall failed under the weight of the excavator causing it to tip sideways cab down in the water. The worker was lucky to escape as the cab was almost submerged.
• #5

• A quarry worker operating a long Reach Komatsu PC200 excavator was tasked with clearing slurry from a pond at a sand quarry. The worker emptied his bucket and was slewing left, when the ground under the excavator gave way, causing it to slowly topple into the pond. The worker was helped out of the excavator by other workers.
These miners weren’t so lucky!
On June 13, 2018, a 65-year old truck driver with 4 years of experience was fatally injured when his truck traveled over a berm and into an impoundment of water. Divers recovered the victim in 20 feet of water.
COAL MINE FATALITY – On December 29, 2018, a 25-year old dredge operator, with 21 weeks of experience, was fatally injured at a coal mine. The victim drowned when the dredge he was operating sank.
88% of Mine Fatalities involving water could have been prevented by using a Personal Floatation Device...A Life Jacket!!
One of these could save someone’s life...TODAY!!!
Tomorrow is your reward for working safely today.
Thank You for your Attention!!

Any Questions?

Have a Great Safety Conference

Work SAFE!!!
Occupational Safety Training & Consulting, LLC

573-210-1520
chuckc@ostc.us

MSHA Safety Training
First Aid CPR/AED Training

Chuck Cantrell, Owner/Consultant
www.ostc.us